3: Mirchuk S-4 (no date) 1949 RDl Ukraine RDl

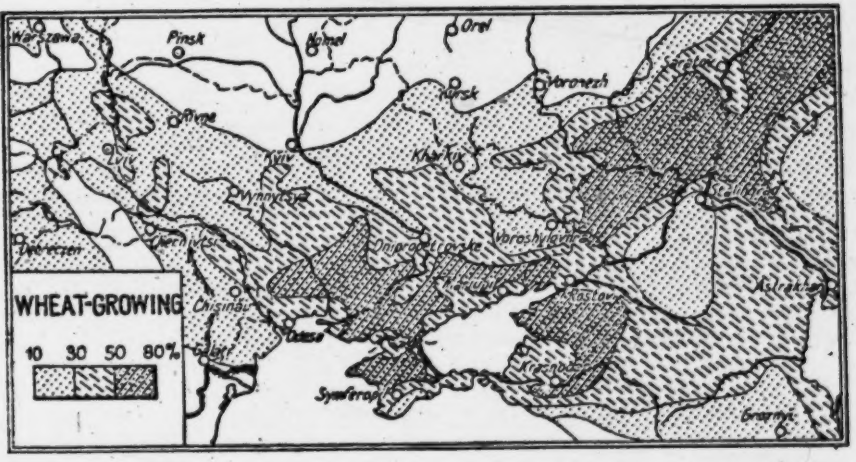
5. Other Agricultural Produce

244 433 In Western Ukraine potatoes account for 16—18 % of the arable land, decreasing towards the south-east to 3—2%. There has been a considerable increase in the cultivation of potatoes of recent times on the small property belonging to private or to collectivised peasants. The yield per ha which before World War I amounted to 92 q sank in the years 1929—1933 to 86 q (Belgium 213, Germany 156, France 110, USSR 80, USA 72). Its total production of 20.6 million t, 10 % of world production (205.6 million t in years 1931—35) puts Ukraine fourth after Germany, USSR (exclusive of Ukraine), and Polan' (exclusive of Ukrainian territory).

● 249 433 Sugar beet is the most important technical cultu.e. It is grown mostly in the center of Dnipro-Ukraine where the rainfall is 500 mm, above all in the area round Kyiv and in Podol.·. The average area planted in the years from 1901/02 to 1910/11 amounted to 555 000 ha and the total yield to 85 million t (154 q/ha). In 1935 Ukraine, with a sugar beet area of 952 000 ha, was the first country in the world as regards this product.

And yet the yields per hektar have decreased to 90 q, the average for 1931—35. In Germany the corresponding figure is 290 q/ha, in Denmark 322 q/ha, in Holland 350 q/ha, in the USSR

[243]



84 q/ha. The reason for the decrease is to be sought in the Soviet form of management. With an entire yield of 8.8 mil-

lion t and 14 % of the world production of sugar beet, Ukraine comes second after Germany (10.6 million t) and before France and the USA (8.2 and 8.1 million t respectively). 249 433

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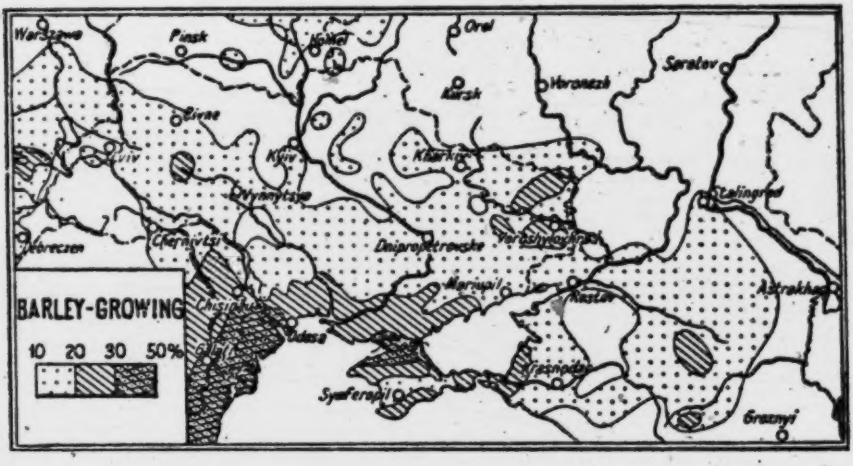

Conditions for growing tobacco in Ukraine are favorable, but the area planted, which in 1908 was 50 000 ha, has not been increased; the yield has risen slightly (8 000 t in the entire country). Better qualities were planted in the south, and elsewhere the well-known "makhorka". Hops of good quality were 249 433

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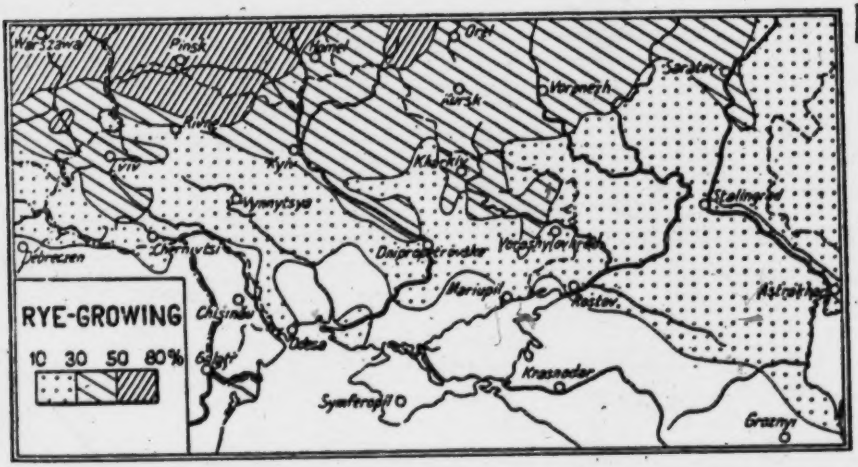

grown in Volynia and partly also in Galicia; 2 000 t were harvested.

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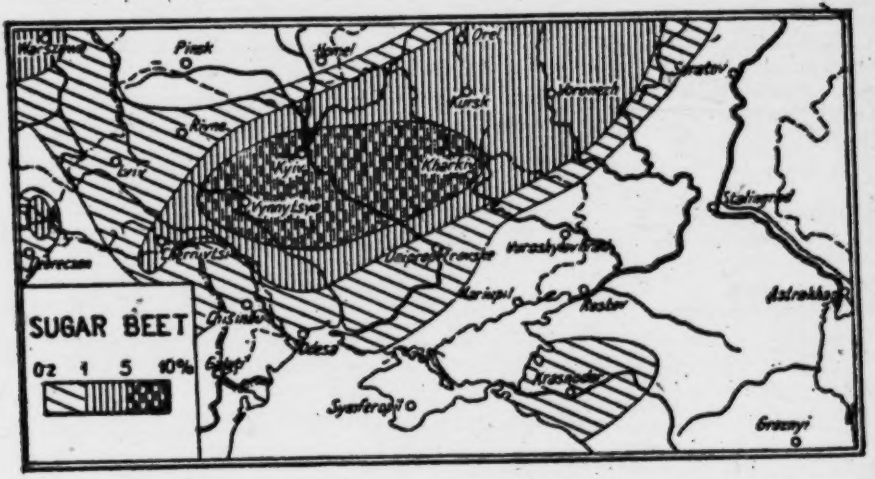
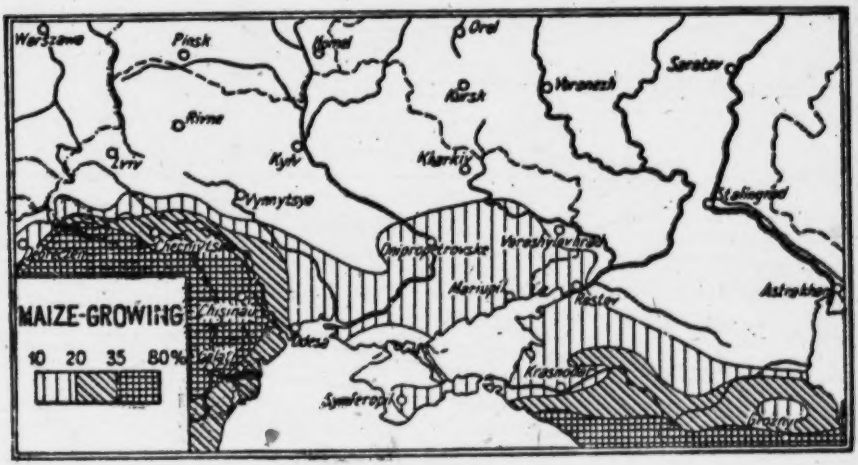
433 Hemp is produced above all in the Chernyhiv area (229 000 ha), Ukraine coming after the USSR in hemp production of the world; in the years 1931—35 its fibre yield was 13 % (8 000 t)

[249]



and its seed yield 19 % (420 000 t) of the world production. Flax is grown on an area of 230 000 ha; Ukraine with a yield of 60 000 t stands second in world production of fibre flax (9.4 % of 640 000 t) while it is sixth as a producer of flax for seed, its yield of 71 000 t being 2 % of world production (3.5 million t).

[243]



Cotton is produced on areas that shift from year to year, mostly without artificial irrigation; hitherto it has not been very successful (45,000t)

7:Bregy & Obolensky H-4, 5 (no date) 1940 RD1 Ukraine RD1

243 Quite recently one has experimented in the Ukraine with two crops formerly unknown in that country—soho and rice—which have given good results. The experience is especially interesting in the case of rice, a very important cereal unknown in Europe, except in Italy, and the cultivation of which may well open new agricultural perspectives.

. . . . .

249 Beside the cereals, the most important sown surface (2,500,000 hectares) is occupied by the so-called technical cultivations, the products of which serve as raw materials in industry, both food and general.

These are the sugar-beet, oil-bearing plants, linseed, hops, and tobacco. The beet, the sown surface of which covers nearly 1,000,000 hectares, occupies the predominant place.

This cultivation expects concentrated exploitation by the great enterprises, furnished by an appropriate agricultural organization and abundant labour, in order to give big harvests.

Thus, before the advent of the Soviet regime, the harvest of beet in the Ukraine reached 150,000,000 quintals, representing nearly 18 per cent of the world's production. At present, notwithstanding the increase of the utilized surface, the harvest only reaches a maximum of 110,000,000. This diminution must be considered as being temporary and solely due to the new system of State capitalism which cannot fully replace private initiative.

One cannot, however, expect a new increase of production in this direction because the cultivation of sugar-beet exhausts the land, hinders the rational system of agricultural exploitation, and requires an enormous outlay on chemical manure, which has to be set off as a

7:Bregy & Obolensky H-4, 5 (no date) 1940 RD1 Ukraine RD1

capital investment against a revenue which does not surpass the normal revenue of a well-organized production of wheat.

The cultivation of sugar-beet is concentrated in the region of Kiev, Kharkov, and in Podolia (Zone 1).[1] The harvest is almost everywhere made into raw sugar on the spot. The refineries, however, are dispersed over the whole territory; 95 per cent of the sugar industry of the Soviet Union is in the Ukraine and owes its expansion to the general Pan-Russian economic organization.

The oil-bearing plants are represented in the Ukraine by the sunflower, linseed, hemp, and mustard.

The cultivation of sunflowers occupies about 800,000 to 850,000 hectares. This is the only source of consumable vegetable oil. Sunflower oil is very nourishing and much appreciated by the native population. It has only one fault—it cannot be preserved for a long time and must be used from harvest to harvest.

Linseed and hemp furnish machine oil and that which is used for the manufacture of paint. Linseed also furnishes the seeds for the northern regions, in Great Russia, where it is cultivated for its fibres. Mustard grains give, apart from the well-known seasoning, small quantities of oil which is used in some food industries.

Among other non-food cultivations, the surface and the harvest of which are more or less important, let us mention tobacco, hops, and cotton.

The production of tobacco in the Ukraine is considerable. 60 per cent of the tobacco plantations of the U.S.S.R. are to be found in the region of Tchernigov and of Romny (in the district of Poltava).

These are tobaccos of an inferior quality, furnishing the partial requirements throughout Russia, and which

[1] [See category 1/6, pp. 139-140 --- Analyst]

249 are known under the name of '*makhorka*.' Fine tobacco is only cultivated in the southern region, near the Crimea, and only in small quantities.

243 As to hops, they are spread over the relatively poor lands of Volynia. Since the end of the nineteenth century this crop has experienced a great development in the Ukraine, which has furnished more than 50 per cent of the hops on the markets of the Russian Empire. This, as is well known, is an indispensable product in the manufacture of beer.

Owing to their utilization in the breweries oats can equally be considered as being not only a direct food crop. This would also apply to a part of the potato harvest (total of 1·2 million hectares), which supplies the most important material for the production of alcohol.

248 The cultivation of cotton which was begun five or six years ago in the extreme south of the Ukraine, between the mouth of the Dnieper and the isthmus of Perekop, is a recent industry. We have little information about its possible future and cannot dwell on it. Actually cotton plantations occupy about 150,000 hectares. The employment of a new variety, called the 'non-irrigated cotton,' seems to give satisfactory results.

241 In all that concerns agriculture, the division into agro-climatic zones seems to be entirely justified.

Actually the northern limit of the cultivation of maize and sunflower corresponds almost entirely to the border between these two zones. On the other hand 95 per cent of the land occupied by sugar-beet is to be found in the southern part of Zone 1.[1] This separation is also not quite so definite for the cultivation of cereals, but nevertheless it exists. The greater amount of wheat is grown in Zone 2.[1] Rye and oats, on the contrary, occupy a greater surface in the north. In the case of the two less important cereals, buckwheat and millet, the separa-

1 [See category 116, pp. 139-140.---Analyst]

7:Bregy & Obolensky H-4, 5 (no date) 1940 RD1 Ukraine RD1

339 To finish with heavy industries, let us still mention the production of building materials—600,000 tons of cement (in the region of the Sea of Azov) and 1 milliard of bricks are annually manufactured in the Ukraine.

258 As for light industry, it is that of food production which occupies the first place.

257 The sugar industry of the whole of Russia is to be found almost entirely in the Ukraine. 12,000,000 quintals of crystallized sugar and 4,000,000 quintals of refined sugar can be produced here annually.

256 The milling industry also occupies an important place. Very important mills, many of which are supplied with highly perfected means of sifting and straining, specialized in the manufacture of fine flours for export before the last war. This industry is concentrated in the ports or in the towns near these or near river ports and in the surroundings of important railway junctions of the southern region. This industry represents 35 per cent of the whole milling industry of the Union and produces, despite the fact that it is not working at full pressure, 2,500,000 tons of wheat flour per annum.

249 The oil mills of the Ukraine produce 40,000 tons of sunflower oil, 3000 tons of linseed oil, and 3000 tons of mustard oil.

274 70 per cent of the alcohol distilleries of the Soviet Union are also in the Ukraine, manufacturing all types of alcohol: from corn, for drinks such as vodka and other liqueurs, and from potatoes, for the dye industry, for pharmaceutical products, and for perfumery.

277 The very important tobacco industry is distributed throughout the great centres of the territory.

255 As for the production of tinned foods, 78 per cent of the production of the Union originates from the Ukraine. Important quantities of vegetables (especially of tomatoes) and of fruit are tinned and exported from the territory.

9: Prothero G-4 (no date) 1920 RD1 Ukraine RD1

privately-owned lands. The failure or success of the Ukraine wheat harvest has its effect upon the corn exchanges of the whole world, and its shipment from the Black Sea is the occasion of much anxiety and speculation every season.

Barley is largely grown and exported, being principally raised on privately-owned land. *Maize* comes next in value; the greater part of the crop is consumed locally, but a moderate quantity is exported in good years. The *oat* crop is valuable, and a proportion remains for export after the supply of local needs. *Millet* and *buckwheat* are grown for local use.

Of the non-cereal crops, *potatoes* take the first place, exceeding all others by a large margin. They are used not only for food and the manufacture of potato flour, but for the distillation of spirits, a flourishing industry in many districts. Small crops of *peas*, *beans*, and *lentils* are also grown.

The *sugar-beet* is raised in great quantities, especially in the governments which have not the black soil. Kiev produces most, Podolia and Kharkov come next; the remaining Governments have only small crops, and Taurida and Yekaterinoslav none. There is usually a large surplus of refined sugar for export, in addition to a valuable internal trade in sugar and manufactures thereof; the by-products of cattle food and spirit distilled from molasses increase the value of this crop.

Tobacco used to be widely cultivated except in the black-soil zone, but its cultivation is steadily decreasing everywhere. It still remains important in the Governments of Poltava and Chernigov. Only the coarsest qualities are raised, the leaf being known as *makhorka* and used solely by peasants and labourers.

Volhynia grows a large quantity of *hops*, about half the total yield of all Russia. The product is mostly sold locally, but occasionally a surplus is exported to the Warsaw market.

The *grape vine* is cultivated in Podolia, Kherson, and Yekaterinoslav. The wine produced is of inferior quality, and has only a local market.

Of the crops producing vegetable oils, *linseed* and

9: Pr ..hero G-4 (no date) 1920 RD1 Ukraine RD1

Of the crops producing vegetable oils, hempseed and *sunflower* are the principal. A great deal of sunflower seed is eaten raw by peasants and labourers all over Russia. These two crops are decreasing.

Fruit and vegetables.—The orchard districts are in the Governments of Podolia, Chernigov, Poltava, and Kiev. Apples, pears, plums, cherries, mulberries, and apricots grow freely, and the surplus goes to northern Russia, great quantities being preserved. Vegetables succeed well in the alluvial soils near the rivers. They are mostly grown by summer immigrants from Bulgaria (cf. p. 72), who use a primitive system of irrigation. The surplus supply all goes to northern Russia.

The live-stock of the Ukraine is very numerous, but of late years has tended to decrease.

Horses are much in demand for agricultural work, especially as the use of oxen as draught animals is being gradually abandoned. There is also a strong demand for horses in the coal and iron region for haulage. As a result the stock of horses has considerably increased in six out of the nine Governments, Volhynia, Podolia, and Chernigov alone showing decreases.

Cattle have decreased in numbers in five Governments and increased in four, but the total shows a serious falling off.

Sheep are divided roughly into two classes, fine-woolled and coarse-woolled, the former producing wool known as 'Spanish', the latter being killed for their skins. There is a general decrease of stock in every province of the Ukraine. The great increase of population and the demand for land, with rising rents, make sheep-farming not sufficiently profitable under present agricultural conditions.

The stock of *pigs* is, on the whole, maintained, and even shows a good increase in some Governments.

The *goat* was formerly of importance, and there was a considerable stock in the country, but it has dwindled latterly at a very rapid rate.

Poultry are kept in considerable numbers, but poultry-farming on modern methods is very rare and of small economic importance.

Apiculture is common in the northern Ukraine, and

241 conceal the fact that the grain harvest of 1938 was only one-sixth larger than that of 1913, whereas the population had increased by nearly 30%.

According to the latest statistics, 80% of the entire arable soil is cultivated, while 20% of it is left fallow. Of the total cultivated surface of all Ukrainian provinces, 76% is planted to grain, 57% of which consists of wheat /151/ and rye, 33% of barley, oats and corn, 10% of millet and buckwheat. Of the entire cultivated area 9% is occupied by industrial plants, chiefly sugar beets and sunflowers, 8% by potatoes, vegetables and legumes, and 7% by fodder. Of the 160 million hectares of land planted to wheat throughout the world in 1933, 12 million hectares fell to the Ukrainian provinces. This gave them third place after the USA with its 17 million hectares and British India with 14.6 million hectares. (95) But the hectare yields in the

95. Kubiyovich: Geography of the Ukrainian and Bordering Areas.

Ukrainian provinces are uncommonly low according to German ideas and in view of the excellent soil. They amount to 9.2 doppelzentner /two hundred weights = 100 kilograms = 220.50 lbs./of wheat (Germany: 22 doppelzentner) and 9.2 doppelzentner of rye (Germany: 17.5 doppelzentner). (96) The

96. Deminskij: "The Economy of the Ukraine" in Deutsche Berufserziehung, Number 15 and 16, page 135.

careless method of cultivating the soil, on the one hand, and the insufficient amount of precipitation on the other, are to blame for these low yields.

249 The sunflower is a cultivated plant that is little known in our country. Its region of cultivation begins in eastern Podolia, runs along

249 the coast of the Black Sea, divides into two wide branches at the Sea of Azov, one of which extends up to the Volga and the other down to Ciscaucasia. In the Kuban region the sunflower occupies up to 30% of the entire cultivated land. The lovely blossoms with their coffee-brown centers and their wreath of yellow rays are improbably large in the Kuban country. Oil mills press out the seeds and manufacture table oil from them. The Kuban "dessert varieties" are valued as a delicacy, the seeds of which are eaten like nuts and are as large as dates. In the last few years the cultivation of cotton has been newly introduced all around the Sea of Azov. But its yield is very small, and the surface cultivated fluctuates from year to year. Between 1931 and 1935 an average of about 300,000 hectares was planted. The attempts to grow rice in the Dnepr plains are also new.

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474 /152/ What is a collective farm? The Bolsheviks distinguish between the so-called Soviet farms, the communes and the artels, both also called kolhosp. The Soviet farm is a government estate in which land, buildings, livestock and goods belong to the state. The Soviet farms are supposed to be model farms for agricultural research; their average size is 1000 to 1200 hectares. They are run by "government officials".

The commune is a composite of peasant farms; the individual farms do not have a particular share of land, and it is cultivated according to a general agricultural plan. Its inventory, buildings and products are the property of the community. The members of the commune receive only a share of the yield which they need to cover their living requirements. The commune did not survive as an organizational form of Bolshevik agriculture, but the artel did. In the latter,

249

An important Agricultural product: sunflowers.